

Appl. No. 09/911143  
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#### ABSTRACT OF THE DISCLOSURE

The invention presents a multilayer optical recording medium element with which information is recorded or reproduced using an optical apparatus that can record or reproduce signals with a first optical recording medium having only one recording layer or a second optical recording medium having a plurality of recording layers. The optical recording/reproducing apparatus includes a light source and a spherical aberration correction means which is arranged between the optical recording medium and the light source. The light source includes a semiconductor laser element which emits a laser beam with a wavelength in the range of 390nm to 420nm. The spherical aberration correction means includes an objective lens with a NA in the range of 0.7 to 0.9. The recording medium provides minimal focal correction by the spherical aberration correction means, regardless of whether a single layer or a multilayer recording medium is used head can be configured, in which there is little deterioration of the correctional effect when the objective lens shifts, as well as an optical head and an optical recording/reproducing apparatus using such an optical element. The invention also presents a novel optical recording/reproducing apparatus and optical recording/reproducing method. The optical element, includes a first voltage application electrode 13, a first opposing electrode 17 arranged in opposition to the first voltage application electrode 13, and a first phase changing layer 15 arranged between the first voltage application electrode 13 and the first opposing electrode 17. By changing a voltage between the first voltage application electrode 13 and the first opposing electrode 17, a phase that converts plane waves into spherical waves is imparted on light that is incident on the first phase changing layer 15.